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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/027,467
Filing Date: December 20, 2001
Appellant(s): SCHMIDT ET AL.

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Amanda M. Miller
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01/05/06 appealing from the Office action
mailed on 12/06/05.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,082,659	SANKARAN et al.	07-2000
5,024,128	CAMPBELL et al.	06-1991

5,588,644	LOTTO et al.	11-1996
3,817,467	DAMBROTH	06-1974

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

A. Claims 14-16, 20, and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sankaran in view of Campbell, Jr. (5,024,128), hereinafter Campbell. Regarding claim 14, Sankaran teaches a transfer blade 28 having a retracted position and an extended position, and a roll 12 wherein a sheet of material 30 passing between the retracted position and the extended position is diverted away from a processing apparatus 2, 22, 34 by the roll 12. The roll 12 diverts away the sheet 30 from the processing apparatus 2, 22, 34 which is defined by the belt wrapper 22, mandrel 2, and the belt wrapper tucking roll 34. Sankaran also teaches that the movement of the transfer blade 28 from the retracted position to the extended position directs the sheet 30 toward a processing apparatus 2, 22, 34. See Figs. 1-3 and col. 4, lines 31-67 and col. 5, lines 1-61 in Sankaran.

Sankaran does not teach that the roll 12 is a pair of nip rolls and the sheet of material passes between the nip rolls. However, the use of nip rolls for creating tension in the sheet of material before the sheet is cut and delivering the sheet to the delivery system is well known in the art such as taught by Campbell. Campbell teaches a pair of nip rolls 80, 81 for creating tension on the sheet 10 before the cutting action by a cutting head and delivering the web to the delivery system. See Fig. 3 and col. 3, lines 8-68 and col. 4, lines 1-32 in Campbell. It would have been obvious to a person of ordinary skill in the art to replace roll 12 of

Sankaran's cutting apparatus with the pair of nip rolls, as taught by Campbell, in order to facilitate the cutting of the sheet of material by creating tension in the sheet of material before the cutting operation and improving transfer of the sheet of material to the delivery system.

Regarding claim 15, Sankaran teaches everything noted above including that the movement of the transfer blade 28 from the retracted position to the extended position breaks the sheet 30. See Fig. 1 and 2 in Sankaran.

Regarding claim 16, Sankaran as modified by Campbell teaches everything noted above including that sheet 30 is in contact with the nip rolls 80, 81 as taught by Campbell. See Fig. 1 in Sankaran and Fig. 2 in Campbell.

Regarding claim 20, Sankaran teaches everything noted above including an idler nip roll 36 wherein the idler nip roll 36 provides tension to the sheet 30 when the sheet is in contact with the transfer blade 28. See Figs. 1 and 2 in Sankaran.

Regarding claim 22, Sankaran as modified by Campbell teaches everything noted above including that the transfer blade 28 and nip rolls 80, 81, as taught by Campbell, are automatically controlled such that the sheet 30 transfers between being directed toward the processing apparatus 2, 22, 34 and being diverted away from the processing apparatus in a continuous manner. See Figs. 1-3 and col. 4, lines 31-67 and col. 5, lines 1-61 in Sankaran and Fig. 3 in Campbell.

B. Claims 17 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sankaran in view of Campbell, as applied to claim 14, and in further view of Lotto et al. (5,588,644), hereinafter Lotto. Regarding claim 17, Sankaran as modified by Campbell

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teaches everything noted above except the sheet of material is broken by the stress applied to the sheet by the rotation of the nip rolls at a faster speed than the speed of the sheet passing between the nip rolls. However, Lotto teaches a sheet of material 26b moves at a first speed and is broken by the stress or tension, which is created by the rotation of a pair of nip rolls 34a and 34b at a second speed greater than the first speed. See Fig. 3 and col. 5, lines 1-22 in Lotto. It would have been obvious to a person of ordinary skill in the art to provide nip rolls of Sankaran's cutting apparatus, as modified by Campbell, with the speed greater than the speed of the sheet material, as taught by Lotto, in order to cut the sheet of material by the nip rolls without using the transfer blade.

Regarding claim 18, Sankaran as modified above teaches everything noted above including that the sheet 30 moves at a first speed and is broken by a stress applied to the sheet 30 by the combination of the movement of the transfer blade 28 from the retracted position to the extended position and the rotation of the nip rolls at a second speed greater than the first speed, as taught by Lotto. The combination of the extension of the transfer blade 28 and the nip rolls with the speed greater than the sheet material can break the sheet of material 30 either at its point of contact with the transfer blade 28 or close to its point of contact with the nip rolls 80, 81, as taught by Campbell.

C. Claims 19 and 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sankaran in view of Campbell, as applied to claim 14, and in further view of Dambroth (3,817,467). Regarding claim 19, Sankaran as modified by Campbell teaches everything noted above except that the transfer blade has air jets. However, the use of air jets with the transfer blades is well known in the art such as taught by Dambroth. Dambroth teaches a

transfer blade 11 which has a plurality of individual air nozzles 23. See Fig. 5 and col. 3, lines 4-29 in Dambroth. It would have been obvious to a person of ordinary skill in the art to provide of Sankaran's transfer blade apparatus with the air jet nozzles as taught by Dambroth in order to create tension on the sheet of material prior to the cutting operation by the transfer blade.

Regarding claim 21, Sankaran as modified by Campbell teaches everything noted above except that the sheet is a fibrous web. Dambroth teaches that web 11 is a textile material. The textile material is considered to be a fibrous material. See col. 1, lines 9-13 in Dambroth. It would have been obvious to a person of ordinary skill in the art to cut with Sankaran's cutting apparatus the fibrous web as taught by Dambroth, since Sankaran's cutting machine is also capable of cutting fibrous web.

(10) Response to Argument

Appellant's assertion that none of the cited references teaches or discloses the diversion of a sheet of material away from a processing apparatus as cited in claim 14 is incorrect. As stated above, Sankaran teaches a roller assembly 12, which is considered as a diverting means or device that diverts sheet 30 away from mandrel roll 2 of the processing apparatus. Mandrel roll 2 is part of the processing apparatus that winds the sheet around the mandrel. Sheet 30 is directed away from mandrel roll 2 of the processing apparatus by roller 12. Roller 12 keeps the sheet 30 away from mandrel 2 and helps sheet 2 to be wound around mandrel 32. It should be noted that roller 12 functions the same as the nip rollers of the instant invention by keeping the sheet away from the processing apparatus. Transfer knife 28 directs the sheet, which is diverted away by roller 12, toward mandrel 2. Sheet 30 is not

directed toward the processing apparatus before the transfer blade directs the sheet toward the processing apparatus. Sheet 30 initially is kept away from the processing apparatus by rollers 12 and 16, before the transfer knife directs the sheet toward the processing apparatus. Therefore, rollers 12 and 16 divert the sheet away from the processing apparatus.

Appellant's argument on page 6, lines 22-25, that "if elements 2, 22, and 34 of Sankaran are pieces of a processing apparatus, as suggested by the Examiner, then the processing unit also includes rollers 12 and 16, as well as mandrel 4" is not persuasive. Appellant's specification considers a processing apparatus, for example, "a roll winder, a slitting machine, an embosser, a heat or chemical treater, a folder, a laminator, or a stitching machine." See page 7, lines 12-17 of the specification. The strip 30 in Sankaran is wound initially onto mandrel 4, and mandrel 2 is empty and awaiting transfer of strip 30. See col. 4, lines 31-35 in Sankaran. Mandrel 2 is "a roll winder" and is considered to be a processing apparatus. It should be noted that the specification of the instant application considers a roll winder as a processing apparatus. Examiner has considered a belt wrapper 22 and a belt wrapper tucking roll 34 which are in direct contact with mandrel 2 as part of the processing apparatus. It should be noted that the mandrel 2 by itself also could be considered as a processing apparatus. However, since the belt wrappers 22 and 34 are in direct contact with the mandrel 2 and help the strip 30 to wound around the mandrel 2, they are considered as being part of the processing apparatus. Rollers 12 and 16 are not considered to be part of the processing unit, since they are separated from the processing apparatus 2, 22, 34. In addition, the processing unit is defined as "a roll winder" in the specification. Therefore, the mandrel 2, which is a roll winder, is considered to be a processing unit.

Appellant's argument that "the fact a sheet may be diverted away from one portion of an apparatus to a different portion of the same apparatus does not satisfy the recitation of the instant claims" is not persuasive. See page 7, lines 18-22 in the appeal brief. Firstly, the claims of the instant applicants do not call for a processing apparatus that is not part of the cutting apparatus or the handling apparatus. In other words, the claims do not recite that a frame, which is separated from the frame of the cutting apparatus, supports the processing apparatus. In fact, elected Species III (Figs. 11-13) does not show a processing apparatus at all. Secondly, the specification discloses, "[t]he processing apparatus could be any processing apparatus known to those skilled in the art." See page 7, lines 10-12 in the specification. Therefore, any apparatus that can handle or process a sheet material is considered to be a processing apparatus by appellant's own words in appellant's specification. This naturally includes the mandrel 2 in Sankaran. It should be noted that the claims do not call for a specified type of processing apparatus and, therefore, Sankaran is proper and appropriate applied reference.

Appellant's argument that the Examiner has not yet provided any evidence of a motivation or suggestion to modify the Sankaran, either from statements from the reference or from other documentary evidence on the record is not persuasive. Sankaran does not teach that the roll 12 is a pair of nip rolls and the sheet of material passes between the nip rolls. However, the use of nip rolls for creating tension in the sheet of material before the sheet is cut and delivering the sheet to a delivery system is well known in the art such as taught by Campbell. Campbell teaches a pair of nip rolls 80, 81 for creating tension on a sheet 10 before the cutting action by a cutting head and delivering a web to a delivery system. See

Fig. 3 and col. 3, lines 8-68 and col. 4, lines 1-32 in Campbell. It should be noted that the nip rolls 80 and 81 in Campbell help the sheet 10a to be transferred to a processing apparatus. See Fig. 1 and col. 4, lines 20-24 in Campbell. A person ordinary skill in the art knows that nip rolls facilitate transferring of a sheet material from a first position to a second position, since the friction between the two rolls helps the material to be pushed forward. Campbell teaches that “[t]he nip rollers 80 and 81 engage the web 10 immediately before the knife cylinder 69 makes the cut. This insures control of the web 10a by the nip rollers 80 and 81 after the cut is made.” It should be noted that the nip rollers control the cut web after it is cut.

In addition, Campbell teaches that surface speed of the sheet transfer section, which includes the nip rollers 80 and 81, is greater than the surface speed of the infeed section 62 to allow the web 10A to move away cleanly from the web 10. See col. 4, lines 33-39 in Campbell. Obviously, the differential surface speed between the nip rolls and the infeed rolls creates tension in the sheet of material that produces clean cuts and cleanly transfers the sheet of material into the processing apparatus. Therefore, it would have been obvious to a person of ordinary skill in the art to replace Sankaran’s roll 12 with nip rollers, as taught by Campbell, in order to create tension in the sheet of material and consequently produce a clean cut and facilitate the transfers of the sheet of material into the processing apparatus.

With respect to claim 17, claim 17 sets forth a different embodiment in which, instead of transfer blades, nip rollers handle cutting of the sheet of material. However, it is well known in the art to cut sheet of material with nip rollers. For example, Lotto teaches that the nip rolls 34a and 34b create tension in the web by rotating faster than the feed rolls 30a, 30b. Lotto teaches that increase in tension in the web separates the web into individual

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web segments. Therefore, it would have been obvious to a person of ordinary skill in the art to provide nip rolls in Sankaran's cutting apparatus, as modified by Campbell, with the speed greater than the speed of the sheet material, as taught by Lotto, in order to cut the sheet of material by the nip rolls without using a transfer blade.

Regarding claims 18-21, appellant's argument that Sankaran and Campbell, alone or in combination, do not teach diverting sheet of material away from a processing apparatus is not incorrect. As stated above, Campbell teaches that the sheet of material 30 is diverted away from the processing unit 2, 22, 34 by rolls 12 and 16.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Ghasem Alie/GA

March 13, 2006

Conferees:

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